

**What is claimed is:**

- 5.1 A, >
1. A method for compressing image data fed from an image sensor having a color pixel array, comprising:
    - 5 (a) extracting red, green and blue(R/G/B) color values from the image data;
    - (b) calculating vertical difference color values between current R/G/B color values of a current line and previous R/G/B color values of a previous line;
    - (c) dividing the vertical difference color values with a predetermined loss value to obtain quota color values,
    - 10 (d) estimating horizontal difference color values between a current quota color value and a previous quota color value; and
    - (e) coding the horizontal difference values.
  2. A method according to claim 1, further including before (b):  
15 determining if the image data corresponds to a first line of a frame and, if the image data corresponds to the first line of the frame, proceeding to (c) without performing (b).
  3. A method according to claim 1 or claim 2, further comprising before (c):  
20 adding remainder color values obtained from (c) to the vertical difference values.
  4. A method according to claim 1 or claim 2, wherein the color pixel array has a bayer pattern.
  - 25 5. A method according to claim 1, further comprising:  
(g) repeating (a) to (d) during one line of the color pixel array and initializing the previous R/G/B color values after completing one line of the color pixel array.

6. A method for compressing image data fed from an image sensor having a color pixel array, comprising:

- (a) extracting red, green and blue(R/G/B) color values from the image data;
- 5 (b) calculating vertical difference values between current R/G/B color values of a current line and previous R/G/B color values of a previous line, respectively;
- (c) adding the vertical difference values with previous R/G/B remainder color values to obtain added color values;
- 10 (d) dividing the added color values with a predetermined loss value to generate current R/G/B quota color values and current R/G/B remainder color values;
- (e) estimating horizontal difference values between the current R/G/B quota color values and previous R/G/B quota color values; and
- 15 (e) coding the horizontal difference values.

7. A method according to claim 6, further comprising:

- (f) repeating (a) to (e) during one line of the color pixel array and initializing the previous R/G/B color values after completing one line of the color pixel array.

8. A method according to claim 6, further comprising before (b):

- 20 (g) determining if the image data corresponds to a first line of a frame and, if the image data corresponds to the first line of the frame, performing (c) without performing (b).

9. A computer readable medium having program code stored therein which when executed by a computer causes data representing image data from an image sensor having a color pixel array to be compressed by:

- (a) extracting red, green and blue(R/G/B) color values from the image data;

- (b) calculating vertical difference color values between current R/G/B color values of a current line and previous R/G/B color values of a previous line;
- (c) dividing the vertical difference color values with a predetermined loss value to obtain quota color values;
- 5 (d) estimating horizontal difference color values between a current quota color value and a previous quota color value; and
- (e) coding the horizontal difference values.

10. A computer readable medium according to claim 9, further including before (b): determining if the image data corresponds to a first line of a frame and, if the image data corresponds to the first line of the frame, proceeding to (c) without performing (b).

11. A computer readable medium according to claim 9 or claim 10, further comprising before (c):

15 adding remainder color values obtained from (c) to the vertical difference values.

12. A computer readable medium according to claim 9 or claim 10, wherein the color pixel array has a bayer pattern.

20 13. A computer readable medium according to claim 9, further comprising:  
(g) repeating (a) to (d) during one line of the color pixel array and initializing the previous R/G/B color values after completing one line of the color pixel array.

25 14. A computer readable medium having program code stored therein which when executed by a computer causes data representing image data from an image sensor having a color pixel array to be compressed by:

- (a) extracting red, green and blue(R/G/B) color values from the image data;
- (b) calculating vertical difference values between current R/G/B color values of a current line and previous R/G/B color values of a previous line, respectively;
- (c) adding the vertical difference values with previous R/G/B remainder color values to obtain added color values;
- (d) dividing the added color values with a predetermined loss value to generate current R/G/B quota color values and current R/G/B remainder color values;
- (e) estimating horizontal difference values between the current R/G/B quota color values and previous R/G/B quota color values; and
- (e) coding the horizontal difference values.

10 15. A computer readable medium according to claim 14, further comprising:

(f) repeating (a) to (e) during one line of the color pixel array and initializing the previous R/G/B color values after completing one line of the color pixel array.

15 16. A computer readable medium according to claim 14, further comprising before

(b):

(g) determining if the image data corresponds to a first line of a frame and, if the image data corresponds to the first line of the frame, performing (c) without performing (b).